



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,000	03/01/2004	William P. Kennedy	10020169-3	1305

7590 12/30/2004

AGILENT TECHNOLOGIES, INC.

Legal Department, DL429

Intellectual Property Administration

P. O. Box 7599

Loveland, CO 80537-0599

EXAMINER

LAUCHMAN, LAYLA G

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/791,000	Applicant(s) KENNEDY ET AL.	
	Examiner L. G. Lauchman	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-17 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1,3-6,17,19 and 20 is/are rejected.
- 7) ☐ Claim(s) 7-16,21 and 22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

Claims 19 and 21 are objected to because of the following informalities:

Claim 19 depends on canceled claim 18. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, 17, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devenyi et al (US 6,614,967).

As to Claims 1 and 3, the patent teaches an alignment system for aligning an end of an optical fiber 54 with an optical component 56, the system comprising (see Fig. 1, col. 3, lines 26-67, col. 4, col. 5, lines 1-8): a lens 92 that receives light from an output of the optical element 56, and focuses light into a light beam, the optical component corresponding to an optical path extending from the light input of the optical component to the output of the optical component; a single optical sensor 82 receiving the focused light beam and converting the light into corresponding electrical signals; and processing logic 102 receiving the electrical signals and processing the signals to determine whether or not said end optical fiber is aligned with the input of the optical

Art Unit: 2877

component; wherein if the processing logic determines that said end of the optical fiber is not aligned with the input of the optical component, the processing logic generates a feedback signal that is sent to a motion control system 62 that controls the spatial positioning of the end of the fiber 54, and wherein the feedback signal is received by the motion control system, the motion control system adjusts a spatial positioning of the end of the optical fiber in accordance with the received feedback signal.

The patent does not specifically disclose aligning an optical fiber with an optical waveguide of an optical device. The patent teaches an alignment system for aligning an optical fiber with an optical component, such as a GRIN lens, along an optical axis. The patent also suggests that it could be any other optical component. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide an optical waveguide instead of the GRIN lens or another optical component, in order to align an optical fiber with the optical waveguide, since the light passes through an optical waveguide just like it passes through the optical component, and therefore, the alignment of the optical fiber and an optical waveguide would be possible using the system of the patent '967.

As to Claim 4, the processing logic will continue to generate signals to the motion control system until it is determined that the end of the optical fiber is aligned with the input of the optical component (see col. 5 lines 2-8).

As to Claims 17 and 19, the apparatus of claims 1 will perform, during its operation, the method steps recited in said claims.

Art Unit: 2877

Claims 5, 6, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devenyi et al (US 6,614,967) as applied to claim 1 and 17 above, and further in view of Palen et al (US 6,205,266).

The patent '967 teach all as applied to claim 1 and 17, except that the sensor is a photodiode. The patent '266 teaches an alignment assembly for alignment of optical devices using a feedback system, wherein a photodetector 60 (see Fig. 3) converts the optical signal in to electrical signal and an optical feedback loop controls the position of the fiber relative to the detector. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the CCD of Deveniy with the photodetector as taught by Palen, since the use of the photodiode instead of the CCD would make the alignment system relatively inexpensive compare to known alignment systems.

Allowable Subject Matter

Claim 7-16, 21 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As to Claim 7, the prior art of record taken along or in combination, fails to disclose or render obvious the motion control system causing the end of the optical fiber to be scanned across layers of the optical device, in combination with the rest of the limitations of the claim and claim 6.

Art Unit: 2877

Conclusion

Papers related to this application may be submitted to Technology Center 2800 by facsimile transmission. Papers should be faxed to TC 2877 via the PTO Fax Center located in CP4-4C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Center number is (703) 872-9306.

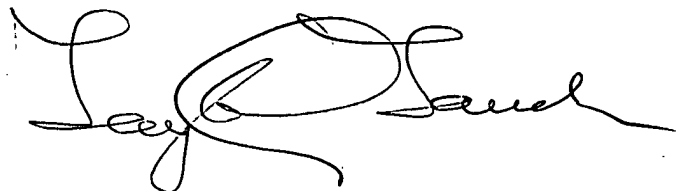
If the Applicant wishes to send a Fax dealing with either a Proposed Amendment or for discussion for a phone interview then the fax should:

- a) Contain either the statement "DRAFT" or "PROPOSED AMENDMENT" on the Fax Cover Sheet; and
- b) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to L. G. Lauchman whose telephone number is (571) 272-2418. The examiner's normal work schedule is 8:00am to 4:30pm (EST), Monday through Friday. If attempts to reach examiner by the telephone are unsuccessful, the examiner's supervisor Gregory J. Toatley, Jr. can be reached on (571) 272-2059, ext. 77.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC receptionist whose telephone number is (571) 272-1562.

A handwritten signature in black ink, appearing to read 'L. G. Lauchman', with a stylized, flowing script.

L. G. Lauchman
Patent Examiner
Art Unit 2877

December 20, 2004